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ABSTRACT

The Basic Skills Center was developed to improve the reading and mathematics skills of students in the Junior High School Transition Program in 27 junior high schools and 4 middle schools in the District of Columbia Public Schools (DCPS). The Mathematics Teacher Resource Development portion of this project worked towards increasing teacher effectiveness in mathematics instruction. The target population for this group consisted of teachers of mathematics in the DCPS who are not certified as probationary or permanent mathematics teachers, those preparing to teach mathematics, and those teaching mathematics who are minimally qualified. A narrative summary is presented of evaluation results of both of these programs. In this summary, specific objectives for the program are listed with narrative discussion of the observed status of participants' accomplishments compared with the intended goals. Included in the appendixes are the evaluation instruments used and samples of resource development program information materials. A sample inservice course is also outlined. (JD)

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PUBLIC SCHOOLS OF THE DISTRICT OF COLUMBIA

IMPROVING BASIC SKILLS CENTER IN READING AND MATHEMATICS

FINAL REPORT

1983-1984

Prepared by
Division of Quality Assurance

1983-1984

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SUMMARY AND FINDINGS

Title

Improving Basic Skills in Reading and Mathematics

Project Coordinators

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Project Location

Although the project office was in the Instructional Services Center at Langdon School, classes for Basic Skills were located in all junior high and middle schools in the DCPS, while courses for Mathematics Teacher Resource Development were offered in various schools and centers throughout the district.

Target Population

The target population for the Basic Skills Center portion at the project consisted of seventh, eighth and ninth grade students in the junior high school transition program. The target population for the Mathematics Teacher Resource Development portion consisted of teachers of mathematics in the District of Columbia Public Schools (DCPS) who are not certified as probationary or permanent mathematics teachers, those preparing to teach mathematics and those teaching mathematics who are minimally qualified.

Background

The original Basic Skills grant in 1980, was funded under ESEA Title II, Part B and concentrated on life skills of high school students, especially in the areas of verbal and written communication and math/money management. This program was superceded by ECIA, Chapter 2, Sub-Chapter A in 1982, with the emphasis shifting to the junior high school level for the strengthening of achievement in reading and mathematics, and to undertrained mathematics teachers throughout the levels. During the first year of the project, an attempt was made to establish Basic Skills Centers in all junior high and middle schools. When that did not prove feasible, the Basic Skills portion of the project shifted to providing training, materials and monitoring for transition teachers and their classes to supplement their program in the 1983-84 school year. Transition teachers generally work with students who are two or more years below grade level and who need extra help in order to reach the CBC objectives necessary to proceed to the next grade.

The Mathematics Teacher Resource Development portion of the project was deemed necessary to meet the increasing decline in student mathematics scores, untrained mathematics teachers and fewer teachers entering the field. These facts were found in studies throughout the United States as well as in the DCPS, and summarized at the National Convocation on Precollege Education in Mathematics and Science, held on May 12th and 13th, 1982. This led to the

application for ECIA Chapter 2 funding to plan a program that would help alleviate the problem in the DCPS. During the first year of the project, planning was completed, a symposium was held, proposals for additional funds were written and staff development/credit courses were taken by 167 teachers with 92 enrolled in the mathematics certification program.

Description of Project

For the Basic Skills portion, identified students were to receive extra help in reading and mathematics, with their individual needs determined through criterion referenced tests. Special management and record keeping systems were to be used with extra instructional materials provided as well as technical assistance. For the mathematics Teacher Resource portion a plan was developed to upgrade mathematics teachers' skills (concentrating on mathematics teachers who do not hold certification in their field) with courses through cooperation with local universities as well as the DCPS Mathematics Department. Teachers taking the courses would be able to demonstrate the skills they acquired.

Stated Objectives

A: At least 80% of the Junior High transition class students who receive reading and/or mathematics instruction during the 1983-84 year in the Improving Basic Skills in Reading and Mathematics program, will acquire proficiencies in at least 75% of the skills in which they were found to be deficient, as measured by a criterion referenced test, and/or will improve those skills at a greater rate then previously as measured by a standardized test.

B: By June, 1984, after receiving the Improving Basic Skills in Reading and Mathematics program's staff development, instructional materials and instructional support from Assistant Directors of Reading and Mathematics, at least 80% of the project teachers will demonstrate their ability to work with skill-deficient students, as measured by an observation checklist, questionnaires and a sampling of Levels of Use interviews.

C: As a result of the Resource Development component of the Improving Basic Skills in Reading and Mathematics program, more teachers will complete Instructional Service Center-sponsored courses for certification in mathematics during the 1983-84 year, than during the 1982-83 year.

Evaluation

The evaluation follows the Planning, Monitoring, and Implementing (PMI) Evaluation Model for Decision-Making which was developed by the Division of Quality Assurance, District of Columbia Public Schools.

Findings

1. The Basic Skills component involved 1,541 students, mainly in the 7th, 8th and 9th grades.

2. Seventh graders increased their percentiles and grade equivalents from 6th to 7th grade on the CTBS as follows:

   Reading - 38th to 45th percentile; 5.7 to 7.3 grade equivalent

   Mathematics - 39th to 44th percentile, 5.9 to 7.7 grade equivalent

3. Seventh to eighth grade scores on the CTBS were not analyzed because 7th graders were not tested in 1983.

4. Ninth graders who were tested as Chapter I 8th graders increased their percentiles and grade equivalents from 8th to 9th grade on the CTBS in reading and stayed relatively the same in mathematics as follows:

   Reading - 16th to 26th percentile; 5.2 to 7.2 grade equivalent

   Mathematics - 28th to 27th percentile; 6.6 to 7.5 grade equivalent.

5. Over 70% of the participating 7th and 8th graders passed the majority of items failed on the criterion referenced pretests in both reading and mathematics. Ninth graders were not posttested in mathematics, but 50% passed the majority of items failed on the reading pretest.

6. Teachers demonstrated that they valued the workshops by placing all ratings in the good or excellent categories.

7. Monitoring records showed that by the second semester 97% of the teachers were in compliance with project guidelines.

8. On teacher questionnaires, 90% of the teachers checked that they were adapting materials to special needs of students; 90% felt the program had a positive impact on student achievement, 93% reported a positive impact on student attitudes and 83% on teacher attitudes.

9. Configuration checklists and Levels of Use interviewing revealed that 83% of the teachers were using acceptable or ideal patterns in presenting the program, and that all of them were at least at Level III on the LoU interviews (Mechanical Use).

10. A 25% sampling (40) of records of Mathematics Resource Development participants showed that 95% had demonstrated successful completion of their course.

11. The number of teachers enrolled in courses developed and supported by the Math Resource Development component of the Basic Skills, Chapter 2 project increased from 92 during the 1982-83 school year to 160 during the 1983-84 school year.

BACKGROUND AND PROJECT DESCRIPTION

Introduction

Purpose - The purpose of the Basic Skills portion of this project was to improve the reading and mathematics skills of students in the Junior High School Transition program grades seven, eight and nine in 27 junior high schools and 4 middle schools.

The goal of the Mathematics Teacher Resource Development portion of this project was to increase the capability of teachers to provide effective mathematics instruction to students, prekindergarten through 12th grade.

Needs - Although test scores have been improving in the DCPS, analysis of District test results for the 1981-82 school year showed that there were a larger percentage of students scoring below the 25th percentile in the basic skill areas of reading and mathematics than would be expected. With the Superintendent's long-range instructional objectives to "modify and strengthen the implementation of the Competency-Based Curriculum and the Student Progress Plan" and to "increase student performance in reading, language arts, (and) mathematics...." there was a need to provide additional resources for junior high school students scoring two or more years below grade level. Thus, the Basic Skills portion of the project was developed.

The need for the Mathematics Teacher Resource Development portion was based on standardized test data and course grades showing low academic achievement of DCPS students in mathematics. Nationally, as well, students demonstrated lower interest and achievement in mathematics. Related to this information was the fact that the number of qualified teachers was steadily diminishing. According to Education Week, March 31, 1982, there has been a 77% decline in the number of secondary level mathematics teachers prepared in 600 teacher-training programs in the United States. Among newly employed mathematics and science teachers, over half of them were judged by their principals to be unqualified to teach in those fields but had been hired on an emergency basis because qualified teachers could not be found. The DCPS reflected this national trend. Out of necessity mathematics classes were assigned to teachers whose training had prepared them for other subjects. Many of them had few if any mathematics courses in college.

History - The original Basic Skills program was funded under ESEA Title II, Part B, beginning in March 1980. In the DCPS, the Basic Skills program has two components, one for the local education agency (LEA) and one for the state education agency (SEA). The purpose of the LEA program was to develop a curriculum in life skills for high school students. The areas emphasized were reading a newspaper, writing such as letters and job applications, speaking clearly, interpreting graphic forms of communication, computational skills, money management and information utilization through logic.

The SEA portion was more concerned with coordinating, planning and disseminating in the Basic Skills area. That grant continued until June 30, 1982.

In 1982, the federal funding for individual programs such as Basic Skills was combined into block grants for states, under ECIA Chapter 2, Sub-Chapter A, Basic Skills Development. The legislative intent of Sub-Chapter A was that funds be used "to develop and implement a comprehensive and coordinated program designed to improve elementary and secondary school instruction in the basic skills of reading, mathematics, and written and oral communication." The Improving Basic Skills in Reading and Mathematics program comprised a series of activities to meet this legislative mandate.

During the 1982-83 school year, the project covered two areas. Each project was evaluated separately. The first project was entitled, Basic Skills Centers, the purpose being the same as this year's, but with an emphasis on providing the services to the students in specially located centers. With the planned extension of the Student Progress Plan (SPP) to the seventh grade, the emphasis was changed to providing services to students in transition classes.

The other project was entitled Mathematics Teacher Resource Development, which was designed to upgrade the quality of mathematics teaching in the DCPS. That aspect of the program continued during the 1983-84 school year. The two facets comprise the present Improving Basic Skills in Reading and Mathematics program.

Description of the Project

Target Population

The population served by the Basic Skills component consisted of 1,541 students in of all DCPS Junior High and Middle Schools, grades seven, eight and nine who were assigned to transition teachers for help in reading and/or mathematics. The target population for the Mathematics Teachers Resource Development consisted of (1) teachers in the DCPS who needed further training for certification as mathematics teachers, (2) mathematics teachers in the DCPS who needed to upgrade their skills in order to provide quality instruction to students, and (3) potential mathematics teachers who might be recruited to teach in the DCPS.

Staffing

Personnel funded by the project were the Assistant Director of Reading, the Assistant Director of Mathematics, the Assistant Director for Resource Development, a mathematics resource teacher, a clerk and the consultants for inservices. Other staff members contributing to the efforts were the Director of the Instructional Services Center, the Supervising Directors of Reading and of Mathematics, course instructors and the administrators and teachers in the 31 participating schools.

Program Components

The Basic Skills Component was planned to supplement the regular program of project participants in the 27 junior high and 4 middle schools. Using criterion-referenced tests, transition teachers were to determine and record the areas in which students needed extra help. An individualized program was to be established for each student as a supplemental learning experience with the appropriate records kept as part of the management system. Extra instructional materials would be supplied. Project staff were to monitor and provide technical assistance. Inservice sessions were to be held with consultants participating as needed. Posttest and standardized tests were to be given at the end of the year, to assess student improvement.

The Mathematics Teachers Resource Development was set up to implement teacher training and upgrading in mathematics by providing inservice and college level courses. Cooperation with local universities for courses was to be sought as well as talent from the DCPS Mathematics Department. Teachers taking courses would be evaluated on their knowledge of course content. Inservice and university courses would be offered after school hours, on-site in the DCPS. Workshops addressing specific skill needs and/or topics would be offered regionally, in designated schools, and at the Instructional Services Center. Individual counseling for teachers would be provided to assist in decision-making about appropriate activity selection and resource needs. Training activities would be designed to assist teachers in developing the competencies they needed to help students acquire required skills in mathematics.

EXTERNAL EVALUATION DESIGN - PLANNING, MONITORING AND IMPLEMENTING (PMI) EVALUATION MODEL FOR DECISION-MAKING

The evaluation follows the Planning, Monitoring, and Implementing (PMI) Evaluation Model for Decision-Making which was developed by the Division of Quality Assurance, District of Columbia Public Schools. (See Appendix A.) The evaluation design which was developed at the beginning of the project year, consisted of the intended inputs, processes and outcomes on specially designed status report forms. The interim report distributed at the mid-point of the project cycle related, on the status report forms, agreements or discrepancies between intended and observed inputs and processes. This final report includes the interim report data brought up to date, plus the agreements and discrepancies between intended and observed outcomes for each objective. Supporting data are included in the appendix. Preceding the PMI status report forms is the results section which summarizes the agreements and discrepancies for each objective and states a general conclusion.

RESULTS

Evaluation Results - Narrative Summary

The results of the evaluation are summarized in this section. Following the narrative are the inputs, processes and outcomes on which this summary is based, presented in the PMI reporting format. Supporting data are in the appendix.

Objective A: At least 80% of the Junior High transition class students who receive reading and/or mathematics instruction during the 1983-84 year in the Improving Basic Skills in Reading and Mathematics program, will acquire proficiencies in at least 75% of the skills in which they were found to be deficient, as measured by a criterion referenced test, and/or will improve those skills at a greater rate then previously as measured by a standardized test.

The status was agreement between all intended and observed inputs except for adequate classroom space. That discrepancy occurred because in one school, space limitations required sharing a classroom with one teacher using it half the day while the other teacher "floated" and vice versa. The personnel inputs with the status of agreement were the project manager, assistant and supervising directors of reading and mathematics, clerk typist for part of the year, 49 project teachers and students in the junior high school transition program. Instructional materials and equipment were seen as being adequate and pre-and posttest forms were available.

All processes showed agreement between intended and observed items. Pre- and posttests were administered, personalized programs were planned, administered, assessed and charted, inventory reports were kept and required records were submitted.

The outcomes showed partial agreement between the observed and intended item. Students were to reach pre-established criteria on either the criterion referenced tests or the standardized tests. None of the criterion referenced test results were as high as the amount established (80% acquiring proficiencies in at least 75% of the skills in which they were found to be deficient). However, both grade levels tested in reading (7th and 9th) and one of the two tested in mathematics (7th) showed significant gains over the previous year. Summarized results of the posttest Prescriptive Reading Inventory for 7th, 8th and 9th graders showed that 44% of the students demonstrated an improvement of at least 75% of their pretest-failed items, and 67% demonstrated improvement in the majority of their failed items. Summarized results of the posttest Diagnostic Mathematics Inventory for 7th, 8th and 9th graders showed that 35% of the students demonstrated improvement in at least 75% of their pretest failed items and 74% demonstrated improvement in the majority of their failed items.

On the CTBS, 7th graders increased percentile ratings in reading from 38th to 45th percentile from end of 6th to end of 7th grade with grade equivalent changing from 5.7 to 7.3, while in mathematics percentiles increased from 39th to 44th and grade equivalent from 5.9 to 7.7. Eighth graders were not tested as 7th graders. Ninth graders tested in reading, increased their percentiles (from end of 8th to end of 9th grades) from 16th to 26th percentile and grade equivalents from 5.2 to 7.2. The 9th grade mathematics scores did not show the same growth. Students gained at about the same level as they had in previous years, i.e. percentile ratings remained approximately the same (28th to 27th) and grade equivalents went from 6.6 to 7.5.

These data show that in general the students showed gains beyond those that would be predicted by the students' past experiences. All of the students were assigned to transition teachers because of their past failures. Their average gains had been less than a year for each year in school. The seventh graders improvements were especially notable in both reading and mathematics.

Objective B: By June, 1984, after receiving the Improving Basic Skills in Reading and Mathematics program's staff development, instructional materials and instructional support from Assistant Directors of Reading and Mathematics, at least 80% of the project teachers will demonstrate their ability to work with skill-deficient students, as measured by an observation checklist, questionnaires and a sampling of Levels of Use interviews.

Additional inputs for Objective B all showed agreement between observed and intended items. These included inservice needs such as consultants, adequate space and released time for participating teachers to attend. Other materials observed to be in agreement were materials and supplies, recording forms and evaluation forms.

All processes were also in full agreement. Orientation and inservice sessions were held; teachers were given materials, information and strategies; coordinators provided technical assistance through bulletins and on-site visits. Checklists, questionnaires and interviews were completed to collect evaluation information.

All observed outcomes were in agreement with the intended ones. Ratings for workshops were in the very good or excellent categories. Monitoring showed that schools in compliance with established program criteria improved from 48% during the first semester to 97% during the second. Teacher questionnaries showed that 90% adapted materials to special needs of students; 87% adapted strategies to special needs of students; 90% felt there was a high impact on student achievement, 93% on attitudes and 83% on teachers' attitudes. Configuration checklists and Levels of Use interviews showed that 83% of the sample interviewed were presenting acceptable or ideal programs and all of them were at the Mechanical Use (LoU III) level or higher.

These data show that more than 80% of the teachers have demonstrated their ability to work with these skill-deficient children. Thus, Objective B has been met.

Objective C: As a result of the Resource Development component of the Improving Basic Skills in Reading and Mathematics program, more teachers will complete Instructional Service Center-sponsored courses for certification in mathematics during the 1983-84 year, than during the 1982-83 year.

The status of additional inputs for Objective C was agreement between observed and intended items for all except one. Although some related correspondence as verbal communication was exchanged, no staff member was designated to work with the Resource Development program to encourage the recertification of uncertified teachers of mathematics. Other items in agreement included instructors and teachers; adequate space, materials and supplies, assessment and evaluation forms, inservices, courses and workshops; and informational material.

Eleven of the thirteen observed processes were in agreement with their intended processes. The first set included counseling for course selection; participation in classes; presentation of subject matter including material leading to improvement of mathematics competency, methods for developing strategies to increase mathematics competency and ways to decrease mathematics anxiety; and evaluation of knowledge acquired. For the second set, the processes in agreement included the dissemination of information on the program, conducting of needs assessments, documenting of a sequence of training to match identified needs, and the offering of courses. The two processes with discrepancies required liaison with a member of the Division of Human Resources. Therefore, that office did not paticipate in the efforts to retrain and recruit persons to teach mathematics and collecting data on the number of mathematics teachers in the DCPS who were not certified as probationary or permanent mathematics teachers.

There was agreement on both outcomes. The first outcome stated that at least 90% of the teachers who attended the courses would demonstrate knowledge of course content acceptable to the instructor. A 25% sampling of records of 40 participants showed that 38 or 95% had demonstrated successful completion. The second outcome stated that the proportion of non-certified mathematics teachers enrolled in project courses would increase significantly over the previous year. Since accurate data on teachers certified as probationary or permanent mathematics teachers were not available, proportions could not be determined. However, the numbers of teachers enrolled in Resource Development courses increased from 92 during the 1982-83 school year to 160 during the 1983-84 year. Thus, Objective C was met.

Conclusion

The goal of this project was to develop and implement a program to improve instruction in basic skills and to provide resource development for mathematics. Objective A was partially reached with conclusive data on the CTBS for significant gains from 6th to 7th grade reading and mathematics and from 8th to 9th grade reading. Since the 7th grade was not tested in 1981-82, it was not possible to assess 7th to 8th graders. The criterion set for the PRI and the DMI may have been too high to demonstrate comparable gains. At least 70% of the students in both 7th and 8th grades demonstrated that they had mastered the majority of the skills on which they had failed on the pretest in both reading and mathematics. The 9th graders represented a smaller sample and those scores that were reported showed that 50% of them had mastered the majority of the items they had failed on the pretest. Mathematics data were not available. The data analyzed show that the program has demonstrated effectiveness with the majority of the students participating.

The successful meeting of Objective B verified that teachers can work well with skill-deficient students, given training, monitoring and encouragement.

Objective C was also met with an increase in the number of mathematics teachers being trained for certification in mathematics.

Results of this evaluation support the continuation of this project with two recommendations:

1) Evaluation recommendation - Reassess the level set on the PRI and DMI for demonstrating improvement, setting it so that it corresponds more closely to the CTBS results;

2) Program recommendation - Place a greater emphasis on improving the skills of the 9th graders.

Decisions

This report will be forwarded to the Project Director, Project Manager, LEA Chapter 2 Directors, the Superintendent and the School Board to aid them in their decision-making concerning this project.

FINAL REPORT

PLANNING, MONITORING, AND IMPLEMENTING (PMI)
EVALUATION MODEL FOR DECISION-MAKING

Reporting Form

Goal: To develop and implement a program to improve instruction in the basic skills of reading and mathematics which supports, strengthens and augments the regular school program; and to provide resource development for mathematics teachers who do not hold certification in their field.

Objective A: At least 80% of the Junior High transition class students who receive reading and/or mathematics instruction during the 1983-84 year in the Improving Basic Skills in Reading and Mathematics program, will acquire proficiencies in a least 75% of the skills in which they were found to be deficient, as measured by a criterion referenced test, and/or will improve those skills at a greater rate than previously as measured by a standardized test.

PART I

INPUTS

INTENDED	STATUS	OBSERVED
a. Project manager	Agreement	a. The Project Manager's name was listed on the Chapter 2 Directory distributed by the ECIA Chapter 2 administration office.
b. Assistant Director of Reading	Agreement	b. Evaluators met with the Assistant Director of Reading who was co-coordinator of the project.
c. Assistant Director of Mathematics	Agreement	c. Evaluators met with the Assistant Director of Mathematics who was co-coordinator of the project.
d. Supervising Director of Reading	Agreement	d. Evaluators met with the Supervising Director of Reading.
e. Supervising Director of Mathematics	Agreement	e. Evaluators met with the the Supervising Director of Mathematics.

OBJECTIVE A

PART I (continued)

INPUTS

INTENDED	STATUS	OBSERVED
f. Clerk-typist	Agreement	f. This position was filled in the spring of 1984 as verified by the board order.
g. Project teachers	Agreement	g. As documented on completed "Basic Skills Information" forms, there was at least one teacher in each project school, for a total of 49 teachers, with 48 completing the year. Some schools had both reading and mathematics teachers; others had either a reading or a mathematics teacher. In one school, the teacher attended the meetings but was unable to paticipate in the program when she was assigned to a regular mathematics position. Three schools did not have full year participation, two because teachers started late, and one because the teacher was on sick leave for three months.
h. Seventh, eighth and ninth grade students in the junior high school transition program	Discrepancy	h. Class lists submitted by teachers from all of the schools showed that a few sixth grade students in middle schools were included even through the criteria established for the program stated that it was for seventh, eighth and ninth grade transition students. See Appendix B for numbers of students in each subject category.

OBJECTIVE A

PART I (continued)

INPUTS

INTENDED	STATUS	OBSERVED
i. Adequate classroom space	Discrepancy	i. According to the Project Coordinators, space was adequate in all but one school where limitations required sharing a class room - one teacher used it half the day while the other "floated" and vice versa.
j. Adequate instructional materials and equipment	Agreement	j. Instructional materials and equipment were verified by the project coordinator as being adequate and were observed by the evaluators. (See Appendix C).
k. Pre- and posttest forms	Agreement	k. Pre- and posttest forms of the criterion referenced tests, "Prescriptive Reading Inventory (PRI)" and "Diagnostic Mathematics Inventory (DMI)" and the norm referenced CTBS were reviewed by the evaluators. All were used the previous year.

OBJECTIVE A

PART II

PROCESSES †

INTENDED	STATUS	OBSERVED
1.1 Project teachers will administer criterion referenced pretests in reading and/or mathematics, using the results to diagnose students' needs in those areas.	Agreement	1.1 Pretests were administered in October, 1983, as evidenced by completed test forms and class summary sheets. The summary sheets displayed individual students' needs.
1.2 Project teachers will plan the personalized instructional programs in reading and/or mathematics.	Agreement	1.2 Project coordinators examined student folders with tests and Student Learning Plans. Evaluators observed samples of them.
1.3 Project teachers will instruct their students in reading and/or mathematics, following the personalized instructional plans.	Agreement	1.3 Project coordinators verified that teachers were personalizing instruction either by using the BASIS kit (one per school) or by using their own plans. Student Learning Plan forms were examined. Suggestions were also given to the teachers by the coordinators, as observed by the evaluator at a workshop.
1.4 Project teachers will carry out continuous assessment of their students.	Agreement	1.4 The BASIS kit has an assessment at the end of each objective. One of the items on the monitoring guide used by the coordinators and examined by evaluators, checked on evidence of assessment of mastery after instruction.
1.5 Project teachers will chart continuous progress of their students toward completion of reading and/or mathematics objectives.	Agreement	1.5 The BASIS kit had a chart for recording continuing progress of students and coordinators verified that this occurred. Charts were observed by evaluators.

† Processes numbered to correspond with outcomes

OBJECTIVE A

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
1.6 Project teachers will keep inventory reports up to date and will submit the completed forms at the end of the year.	Agreement	1.6 Evaluators reviewed letters to participants dated September 14, 1983 and January 17, 1984 reminding them of inventory reports to be kept up to date and submitted at the end of the school year. Evaluators examined copies of completed inventory lists.
1.7 Project teachers will administer posttests in reading and/or mathematics to their students.	Agreement	1.7 Posttests were administered at the end of the school year to all students who were in the program the full year. Data were analyzed by the evaluators.
1.8 Project personnel will provide the ECIA Evaluation Unit with names and identification numbers of project students for use in retrieving standardized test scores from the computer.	Agreement	1.8 The evaluators received lists of 1,541 names and ID numbers for participating students.

† Processes numbered to correspond with outcomes

OBJECTIVE A

PART III

OUTCOMES

INTENDED	STATUS	OBSERVED
1. By June, 1983, analysis of raw scores submitted to the ECIA Chapter 2 Evaluation Unit by the project manager, will show that at least 80% of the students receiving at least eight months' reading instruction through the project (a.) will acquire proficiencies in at least 75% of the reading skills in which they were found to be deficient on a criterion referenced test, (b.) will acquire proficiencies in at least 75% of the mathematics skills in which they were found to be deficient on a criterion referenced test, and/or	Partial Agreement	1. Although the stated criteria were not reached by 80% of the students on the Prescriptive Reading Inventory and the Diagnostic Mathematics Inventory, the standardized test, (CTBS) indicated higher than expected growth for all groups tested except on 9th grade Mathematics. (a) Results of the PRI for a total of 323 students (7th, 8th and 9th grades) were that 44% of the students had a percentage improvement of 75% or more in reading and 67% improved on at least 50% of the items on which they had previously failed. (See Appendix D for separate grade results.) (b) Results of the DMI for a total of 84 students in the 7th, 8th and 9th grades were a percentage improvement in mathematics of 75% or more by 35% of the students and 74% improved on at least 50% of the items on which they had previously failed. (See Appendix D for grade level breakdown).

OBJECTIVE A

PART III (continued)

OUTCOMES

INTENDED	STATUS	OBSERVED
(c.) will show a higher percentile ranking than the previous year in reading on a standardized test,		(c.) Results for 186 7th graders who had also taken the 6th grade CTBS demonstrated a 1.8 year gain in reading and an increase from 38th to 45th percentile. The 93 9th graders who had taken the CTBS in the 8th grade demonstrated a two year gain in reading and an increase from 16th to 26th percentile. (See Appendix D.) Seventh to eighth could not be computed since the CTBS was not administered to 7th graders in 1983.
(d.) will show a higher percentile ranking than the previous year in mathematics on a standardized test.		(d.) In mathematics, 138 7th graders who had also been tested on the CTBS as 6th graders, demonstrated a 1.8 year's growth with their percentile rating increasing from 39 to 44th. The 34 9th graders who had been tested as 8th graders on the CTBS demonstrated a .9 year growth, about the same average rate of increase as in previous years, with the percentile changing from 28th to 27th (see Appendix D).

OBJECTIVE A

PART III (continued)

OUTCOMES

INTENDED	STATUS	OBSERVED
		(d.) (continued) Seventh to eighth could not be computed since the CTBS was not administered to seventh graders during the 1982-83 school year.

FINAL REPORT

PLANNING, MONITORING, AND IMPLEMENTING (PMI)
EVALUATION MODEL FOR DECISION-MAKING

Reporting Form

Goal: To develop and implement a program to improve instruction in the basic skills of reading and mathematics which supports, strengthens and augments the regular school program; and to provide resource development for mathematics teachers who do not hold certification in their field.

Objective B: By June, 1984, after receiving the Improving Basic Skills in Reading and Mathematics program's staff development, instructional materials and instructional support from Assistant Directors of Reading and Mathematics, at least 80% of the project teachers will demonstrate their ability to work with skill-deficient students, as measured by an observation checklist, questionnaires and a sampling of Levels of Use interviews.

PART I

INPUTS

INTENDED	STATUS	OBSERVED
For Inputs a through g, please see Objective A, page 1.		
h. Consultants for inservices	Agreement	h. Consultants have been presenting at inservices as observed by the evaluators.
i. Adequate space for inservices	Agreement	i. Space for inservices was observed to be adequate.
j. Released time for project teachers to attend inservices	Agreement	j. Most buildings provided coverage without requiring substitutes. When needed, the project paid for substitutes as shown in a memo dated September 29, 1983. Thus, released time was arranged for all teachers.

OBJECTIVE B

PART I (continued)

INPUTS

INTENDED	STATUS	OBSERVED
k. Project materials for project teachers	Agreement	k. At the meeting held on September 14, 1983 teachers submitted lists of project materials on hand. The lists were examined by the evaluators. Materials were also observed in the classrooms.
l. Adequate materials, supplies and equipment for workshops and the production of instructional bulletins	Agreement	l. Materials, supplies and equipment were verified by the project coordinators as being adequate. Instructional bulletins were examined.
m. Log form for Assistant Directors' technical assistance requests	Agreement	m. The log form was examined by the evaluators.
n. Suggested student record form for project activities	Agreement	n. Suggested student record forms were examined by the evaluator at the orientation meeting held on October 18, 1983.
o. Observation checklist for Assistant Directors' on-site visits	Agreement	o. Observation checklists (monitoring guides) were examined at the orientation meeting. (See Appendix E).
p. Outline for Teacher Questionnaires	Agreement	p. Outline for Teacher Questionnaires were distributed at the orientation meeting by the evaluator.
q. Levels of Use (LoU) scoring sheets	Agreement	q. The evaluators have LoU scoring sheets on file.

OBJECTIVE B

PART II

PROCESSES †

INTENDED	STATUS	OBSERVED
1.1 Orientation sessions will be held in each region as requested.	Agreement	1.1 Coordinators verified and provided agendas for orientation meetings as follows: Region A - September 13, December 12, 1983 Region B - November 4, 1983 Region C - September 22, 1983 Region D - October 4, October 20, 1983
1.2 At least two half-day inservice sessions will be held during the school year for project teachers.	Agreement	1.2 Three half-day inservice sessions were held as evidenced by sign-in sheets and completed evaluation forms. The first was held on October 18, 1983 the second on February 24, 1984 and the third on April 10, 1984.
1.3 During the first inservice, teachers will be given information on project evaluation requirements.	Agreement	1.3 During the first inservice teachers were given information on project evaluation requirements by a member of the ECIA Chapter 2 Evaluation Unit. (See Appendix F).
1.4 During the first inservice, consultants will provide strategies for the effective use of materials.	Agreement	1.4 During the first inservice consultants provided a list of strategies for the effective use of materials as observed and collected by the evaluator. Two consultants discussed comprehension of skills, word attack skills and study skills. Another consultant discussed songs to read by, reading your newspaper and duplicating books. Another consultant discussed problem solving. (See Appendix F).

† Processes numbered to correspond with outcomes

OBJECTIVE B

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
1.5 During the second inservice, successful strategies will be discussed including those reported by teachers in the program.	Agreement	1.5 At the second inservice teachers were presented with strategies for improving reading comprehension. At the third inservice teachers were presented with strategies and materials to help improve mathematics. At both workshops, teachers discussed the strategies presented as well as others. (See Appendix G for announcements of meetings.)
1.6 Project teachers will complete evaluation forms for each inservice.	Agreement	1.6 Copies of completed evaulation forms from the first and second inservice were submitted to the evaluators. Project coordinators verified that forms were completed for the third one.
2.1 Project materials will be delivered to all project teachers.	Agreement	2.1 The evaluator attended the teachers' meeting where teachers were asked about their receipt of new project materials. Most teachers had received their materials. In a few cases where some had received too many of a particular item and others not enough, the coordinators made adjustments.
2.2 Project coordinators will prepare and distribute instructional bulletins periodically.	Agreement	2.2 The first bulletin was distributed in October, 1983; the second in January, 1984; and the third in June, 1984 with copies sent to the Evaluation Unit.

† Processes numbered to correspond with outcomes

OBJECTIVE B

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
2.3 Project coordinators will make on-site support visits to project teachers.	Agreement	2.3 Coordinators made on-site visits as evidenced by monitoring logs examined by evaluators.
2.4 Project Coordinators will respond to individual teachers' requests for technical assistance.	Agreement	2.4 Coordinators indicated on their logs the date and type of technical assistance provided.
2.5 Once each semester, Project Coordinators will complete checklists using information from student folders, interviews and classroom observation.	Agreement	2.5 During the first quarter coordinators visited each site at least once. They collected information for their checklists using information from students' folders, observing and talking to teachers. During the second semester they sent the forms to the teachers in advance, to prepare them for the visits. All visits were documented on record sheets examined by the evaluators.
2.6 With input from project coordinators, the Evaluation Unit will design teacher questionnaires.	Agreement	2.6 Preparation of teacher questionnaires was completed by evaluators. (See Appendix H).
2.7 During the spring of 1984, project teachers will complete Teacher Questionnaires.	Agreement	2.7 Teachers questionnaires were completed and returned by 31 teachers, a 65% response rate.

† Processes numbered to correspond with outcomes

OBJECTIVE B

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
2.8 With input from project coordinators the Evaluation Unit will design a Configuration Diagram and accompanying questions.	Agreement	2.8 Preparation of Innovation Configuration materials was completed. (See Appendix I).
2.9 During the second semester, ECIA Chapter 2 Evaluation Unit personnel will complete Innovation Configurations and Levels-of-Use (LoU) interviewing on a sampling of project teachers.	Agreement	2.9 Evaluators conducted LoU interviews with Innovation Configurations in the spring, with 18 teachers, comprising a 38% sample of participants.

† Processes numbered to correspond with outcomes

OBJECTIVE B

PART III

OUTCOMES

INTENDED	STATUS	OBSERVED
1. An analysis of raw scores of teacher ratings of project workshops, submitted to the ECIA Chapter 2 Evaluation Unit by the Project Manager by June, 1984 will show mean ratings to be above average on the value of the workshop to participants and on the meeting of workshop objectives.	Agreement	1. Mean ratings analyzed for two of the workshops ranged from 3.50 to 3.92 on a scale of 1 (less than adequate) to 4 (excellent). All ratings were in the very good or excellent categories. (See Appendix J.)
2. An analysis of information submitted to the ECIA Chapter 2 Evaluation Unit by the Project Manager by June, 1984 will show that at least 80% of the project teachers have adapted strategies and materials to the special needs of students, to be measured as follows:		
(a.) an increase in the number of pluses on the observation checklist from the first to the second semester observations;	Agreement	(a.) Monitoring completed during the first semester showed that 16 of the 31 schools (52%) were in compliance while 15 (48%) were not. During the second semester 30 of the 31 schools (97%) were in compliance with the criteria. With a Z of -4.54, this difference is significant at the .001 level.

OBJECTIVE B

PART III (continued)

OUTCOMES

INTENDED	STATUS	OBSERVED
(b.) a mean rating of 4 out of a possible 5 on teacher questionnaires;	Agreement	(b.) On the questionnaire asking the extent to which teachers adapted materials to special needs of students, 90% and checked a 4 or 5 rating, with 1 being lowest and 5 highest. The mean rating was 4.7. On the item asking the extent to which teachers adapted strategies to special needs of students, 87% had checked a 4 or 5, with the mean rating 4.3. (See Appendix K). The questionnaire also asked for teacher opinions on the effect of the program in three areas. Results showed 4 or 5 ratings as follows: Impact on students' achievement - 90% Impact on students' attitudes - 93% Impact on teachers' attitudes - 83%
(c.) Configuration checklist showing acceptable variations and Levels-of-Use (LoU) ratings of Level III, IV or V.	Agreement	(c.) Checklist to determine which parts of the program were being used, with the interviewers checking whether the variations were unacceptable, acceptable or ideal, were analyzed for 18

OBJECTIVE B

PART III (continued)

OUTCOMES

INTENDED	STATUS	OBSERVED
(c.) (continued)	Agreement	(c.) teachers with 15 (or 83%) using acceptable or ideal patterns. Levels of Use (LoU) interviews determined whether or not the project was being implemented and if so, how it was being used. In our study, a 38% random sample (18 teachers) were interviewed. All of the teachers interviewed were using the program. The largest percentage, 78%, were at the Routine Level (IVa), meaning a routine pattern of use had been established and the teachers felt comfortable with it. Of the remaining four teachers, two were a step below (Mechanical Use, Level III, in which the teacher focused on the short-term day-to-day use, trying to master the tasks required); and two were on the step above (Refinement, Level IVb, in which they varied the use, to increase the impact on the students.)

FINAL REPORT

PLANNING, MONITORING, AND IMPLEMENTING (PMI)
EVALUATION MODEL FOR DECISION-MAKING

Reporting Form

Goal: To develop and implement a program to improve instruction in the basic skills of reading and mathematics which supports, strengthens and augments the regular school program; and to provide resource development for mathematics teachers who do not hold certification in their field.

Objective C: As a result of the Resource Development component of the Improving Basic Skills in Reading and Mathematics program, more teachers will complete Instructional Service Center-sponsored courses for certification in mathematics during the 1983-84 year, than during the 1982-83 year.

PART I

INPUTS

INTENDED	STATUS	OBSERVED
For Inputs a, e, and f please see Objective A, page 1.		
b. Assistant Director for Resource Development	Agreement	b. Evaluators met with the Assistant Director for Resource Development who is a project co-coordinator.
c. Resource Teacher Trainer	Agreement	c. The project coordinator verified the position of course instructor and outlined his duties to the evaluators.
d. Course Instructors	Agreement	d. Course instructors as indicated on documents provided to the evaluators are from the participating Universities and the Teacher Center.
g. Teachers of mathematics in the DCPS who are not certified as probationary or permanent mathematics teachers	Agreement	g. Through surveys, questionnaires and other sources, estimated numbers of teachers of mathematics who are not fully qualified to teach the subject, have been documented.

OBJECTIVE C

PART I (continued)

INPUTS

INTENDED	STATUS	OBSERVED
h. Designated staff in the Division of Human Resource Management	Discrepancy	h. Although some related correspondence was received from the Division of Human Resource Management, and verbal communications have been sent, no staff has been designated to work with the Resource Development to encourage the certification of uncertified teachers of mathematics.
i. Adequate space for classes	Agreement	i. Space for classes was observed to be adequate.
j. Adequate materials and supplies	Agreement	j. The project coordinator verified that materials and supplies were adequate.
k. Needs assessment forms for mathematics teachers	Agreement	k. Completed needs assessment forms were examined.
l. Mathematics inservices, university courses, and workshops	Agreement	l. Flyers, schedules and course outlines were examined. Evaluators observed courses in progress.
m. Instruments to assess course performance of participants as designated by instructors	Agreement	m. Course outlines indicated the course evaluation component. Instructors used teacher-constructed instruments as verified by project staff.
n. Inservice evaluation forms	Agreement	n. Inservice evaluation forms were examined by evaluators.
o. Recording system to indicate teachers enrolled in training	Agreement	o. Evaluators examined completed rosters.

OBJECTIVE C

PART I (continued)

INPUTS

INTENDED	STATUS	OBSERVED
p. Informational material on the Resource Development Program for dissemination purposes	Agreement	p. Informational material examined by the evaluators included schedules of offerings, course descriptions, information on mini-seminars and flyers. (See Appendix L.)
q. Informational sources to collect data on mathematics teachers in the DCPS who are not certified as probationary or permanent mathematics teachers	Agreement	q. Informational sources to collect data on uncertified mathematics teachers included computer read-outs and cross referenced computer data on mathematics teachers and the courses they taught, mathematics teachers by building, ET teachers on payroll file, mark distribution reports by teacher and completed needs assessment questionnaires.

OBJECTIVE C

PART II

PROCESSES †

INTENDED	STATUS	OBSERVED
1.1 Mathematics Department staff will provide individual counseling to teachers upon request, to assist them in course selection.	Agreement	1.1 The project coordinator verified that course selection counseling was available upon request. Trancripts examined by evaluators were used to point out deficiencies. Support seminars to help meet professional and affective needs were held, with course descriptions examined by the evaluators.
1.2 Teachers will participate in inservice training.	Agreement	1.2 Sign-in sheets examined by evaluators showed that inservice training was completed by 42 teachers during the summer, 64 during the first semester and 54 during the second semester of the 1983-84 school year for a total of 160. Many teachers indicated a desire to take the courses but could not afford the fees.
1.3 Course instructors will present subject matter including the following:		
1.31 Material leading to the improvement of mathematics content competency of teachers;	Agreement	1.31 Course descriptions were examined and do contain material leading to the improvement of math content competency. Evaluators observed courses offered through the Mathematics Resources program.

† Processes numbered to correspond with outcomes

OBJECTIVE C

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
1.32 Methods of developing strategies for teachers to help increase mathematics competencies of students, consistent with CBC instruction;	Agreement	1.32 Mini-seminars as described in data provided to the evaluators were held to include providing support for the instructional needs of students consistent with CBC instruction. The project coordinator also verified that some of the mathematics teachers are in the Academic Learning Time (ALT) program to learn more strategies.
1.33 Identification of ways to decrease mathematics anxiety of teachers and students.	Agreement	1.33 The mini-seminars course objective concerning motivating students in learning mathematics included dealing with mathematics anxiety, avoidance and fear in both teachers and students.
1.4 At the end of the inservice training, participants will be evaluated on their knowledge of course content as designated by instructors.	Agreement	1.4 The inservice participants were assessed on their knowledge of course content by means of final examinations as indicated in course outlines checked by the evaluators and verified by the project coordinator.

† Processes numbered to correspond with outcomes

OBJECTIVE C

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
2.1 Project staff will disseminate information on the program in order to recruit to the courses teachers who are not certified as permanent or probationary mathematics teachers.	Agreement	2.1 Flyers and other dissemination materials were examined.
2.2 The Assistant Director for Resource Development and staff will conduct needs assessments (both formal and informal) to determine mathematics deficiencies and certification status of mathematics teachers.	Agreement	2.2 Completed forms as well as summarized data were examined by the evaluators. (See Appendix M for 1982-83 summary.)
2.3 The Assistant Director for Resource Development and Staff will document a sequence of training for project participants which will match the needs identified by the needs assessment.	Agreement	2.3 The Mini-Seminar information sheet outline documented a sequence of training for participants which the project coordinator verified as matching identified needs.
2.4 Courses in mathematics for university and recertification credit will be offered after school on site in the DCPS.	Agreement	2.4 Completed Intent to Register forms were examined. (See Appendix N.) Rosters of participants were observed to be on file. Examples of courses were "Precalculus with Trigonometry I," "Calculus II" and Linear Algebra" and "Teaching Basic Algebra Through the Content Areas."
2.5 Mathematics workshops addressing specific skill needs or topics will be offered regionally, in designated schools, at the Teacher Center and at the Instructional Services Center as requested.	Agreement	2.5 Flyers, workshop outlines and sign-up sheets were examined by the evaluators "Problem Solving" is an example of a workshop offered regionally, which was observed by the evaluator.

† Processes numbered to correspond with outcomes

OBJECTIVE C

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
2.6 Project staff will work with staff of the Division of Human Resource Management to coordinate efforts in the retraining and recruitment of persons to teach mathematics.	Discrepancy	2.6 Although there has been some correspondence between the staff of the Division of Human Resources and the Mathematics Teacher Development sub-group of the Basic Skills project as examined by the evaluators, no liaison person has been assigned from personnel.
2.7 Project staff will collect data for 1982-83 and 1983-84 on the number of teachers enrolled in project sponsored courses and the number of mathematics teachers in the DCPS who are not certified as probationary or permanent mathematics teachers.	Discrepancy	2.7 Efforts to collect certification data have been hampered by lack of a liaison person from the Division of Human Resources. Some information was provided and examined by the evaluators, but it did not accurately reflect the numbers of mathematics teachers who were not certified as probationary or permanent mathematics teachers.

† Processes numbered to correspond with outcomes

OBJECTIVE C

PART III

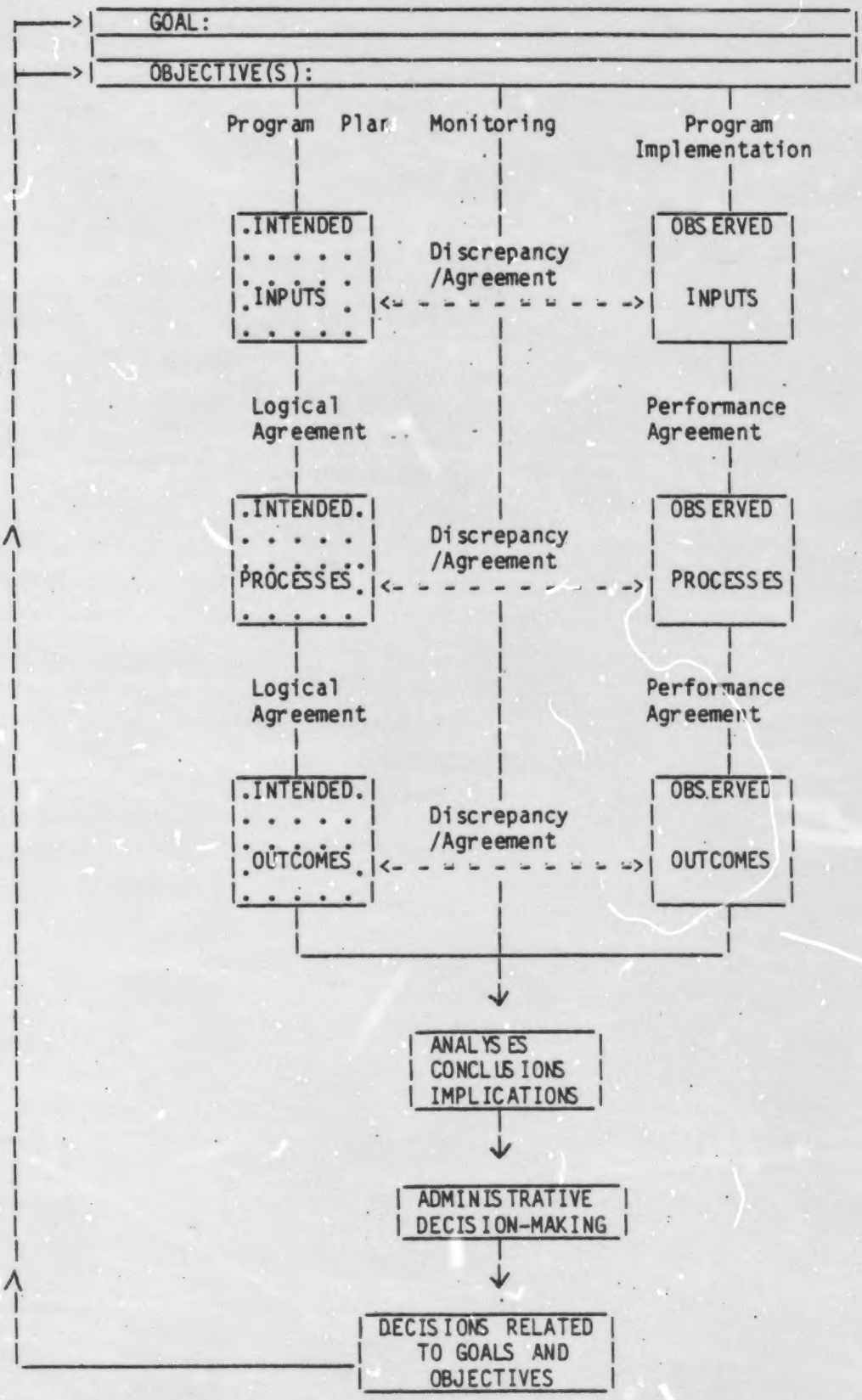
OUTCOMES

INTENDED	STATUS	OBSERVED
1. An analysis of data submitted by June, 1984 to the ECIA Chapter 2 Evaluation Unit by the Project Manager will show that at least 90% of the teachers who attended the inservice courses and workshops, demonstrated knowledge of course content acceptable to the instructor.	Agreement	1. A 25% sampling (40) of records of Mathematics Resource Development participants, showed that 38 or 95% had demonstrated successful completion of their course. The project coordinator verified that the results were typical of all participants.
2. An analysis of data (number of mathematics teachers who are not certified as probationary or permanent mathematics teachers and number of teachers enrolled in project-sponsored courses toward credentialling in mathematics) submitted to the ECIA Chapter 2 Evaluation Unit by the Project Manager will show a significantly higher proportion being trained during the 1983-84 year than were trained during the 1982-83 year (the difference being significant at the .05 level).	Agreement	2. Since accurate data on teachers not certified as probationary or permanent mathematics teachers were not available, it was not possible to determine proportions. However, the numbers of teachers enrolled in the courses developed and supported by the Resource Development Component of the Basic Skills, Chapter 2 project increased from 92 during the 1982-83 school year to 160 during the 1983-84 school year. (See Appendix O.)

APPENDIX A

EVALUATION MODEL SCHEMA

EVALUATION MODEL SCHEMA



APPENDIX B

NUMBERS AND PERCENTS OF STUDENTS IN
EACH SUBJECT CATEGORY AND BY SEX
IN THE BASIC SKILL PROGRAM 1983-84

Numbers and Percents of Students in Each Subject Category and by Sex
in the Basic Skills Program 1983-84
N = 1533

SUBJECT	Grade 6						Grade 7						Grade 8						Grade 9						Total					
	Male		Female		Total		Male		Female		Total		Male		Female		Total		Male		Female		Total		Male		Female		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
READING	-	-	-	-	-	-	163	39.2	106	38.5	269	38.9	162	59.8	155	67.1	317	63.1	106	74.1	123	75.9	229	75.1	431	50.8	384	56.1	815	53.2
MATHEMATICS	4	22.2	6	35.3	10	28.6	131	31.5	98	35.6	229	33.2	94	34.7	66	28.6	160	31.9	33	23.1	34	21.0	67	22.0	262	30.9	204	29.8	466	30.4
READING/MATHEMATICS	14	77.8	11	64.7	25	71.4	122	29.3	71	25.9	193	27.9	15	5.5	10	4.3	25	5.0	4	2.8	5	3.1	9	2.9	155	18.3	97	14.1	252	16.4
TOTAL	18		17		35		416		257		691		271		231		502		143		162		305		848		685		1533	

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APPENDIX C

BASIC SKILLS PROGRAM INSTRUCTIONAL MATERIALS

Basic Skills Program Instructional Materials

Reading

Functional Academic Competency - Laboratories
- Concepts in Comprehension
- Reading for Living
- Increasing Comprehension
- Curriculum Based Reading

CTB/McGraw-Hill
- PRI/RS Prescriptive Reading Inventory - Level D Classroom Kit

Globe
- Look It up

Intac, Inc.
- Songs to Read by-Upper Level
- Reading Your Newspaper Duplicating Book

Mastery Education Corporation - Chicago Mastery
- Comprehension Workbooks
- Word Attack Workbooks
- Study Skills

Modern Curriculum Press.Inc.
- Skill-By-Skill Reading Station

Nystrom
- Reading for Content

Reader's Digest
- Triple Takes
- Combination Kits(4)

Scott Foresman and Co.
- Basic Reading Skills Workbook

Mathematics

Functional Academic Competency - Laboratories
- Formula 1
- 60 Seconds Club Math

CTB/McGraw-Hill
- DMI-Diagnostic Mathematics Inventory - Level E Classroom Kit

Nystrom
- Solving Math Word Problems (3 Kits/Level A, Level B and Level C)

Reader's Digest
RD Math Programs (3 Kits/Grade 5, Grade 6, and Grades 7 and 8)

SRA
Math Application Kit
Student Handbooks(10)

Alpha Resource Center
Unit 5 Select - A Skill Kit
Unit 6 Select - A Skill Kit

Creative Publications
Calculator Activities - Book 1
Calculator Activities - Book 2

Reading and Mathematics

CTB/McGraw-Hill
Level Four Basis

Riverside Publishing Co.
Improving Test Taking Skills (Lesson 1 - 15)

Hardware (Equipment)

Creative Curriculum Reader (Tachistoscope)
Listening Center
Filmstrip Projector
Tape Recorders (2)
EL - 200 Calculators (10)

APPENDIX D

RESULTS OF STANDARDIZED AND CRITERION REFERENCED TESTS IN READING AND MATHEMATICS

STUDENT WITH PERCENTAGE IMPROVEMENT OF 75% OR MORE ON THE PRESCRIPTIVE READING INVENTORY
N = 323*

Grade Level	7th		8th		9th		Total	
Number Tested	N = 158		N = 123		N = 42		N = 323	
Number and Percent with 75% Improvement or more	# 79	% 50	# 54	% 44	# 9	% 21	# 141	% 44

STUDENT WITH PERCENTAGE IMPROVEMENT OF 75% OR MORE ON THE DIAGNOSTIC MATHEMATICS INVENTORY
N = 84*

Grade Level	7th		8th		9th		Total	
Number Tested	N = 46		N = 37		N = 1		N = 84	
Number and Percent with 75% Improvement or more	# 13	% 33	# 14	% 38	# 0	% -	# 29	% 35

* All students for whom both pre- and posttests were submitted

STUDENT WITH PERCENTAGE IMPROVEMENT OF 50% OR MORE ON THE PRESCRIPTIVE READING INVENTORY
N = 323*

Grade Level	7th		8th		9th		Total	
Number Tested	N = 158		N = 123		N = 42		N = 323	
Number and Percent with 50% Improvement or more	# 110	% 70	# 86	% 70	# 21	% 50	# 217	% 67

STUDENT WITH PERCENTAGE IMPROVEMENT OF 50% OR MORE ON THE DIAGNOSTIC MATHEMATICS INVENTORY
N = 84*

Grade Level	7th		8th		9th		Total	
Number Tested	N = 46		N = 37		N = 1		N = 84	
Number and Percent with 50% Improvement or more	# 36	% 78	# 26	% 70	# 0	% -	# 62	% 74

* All students for whom both pre- and posttests were submitted

CTBS RESULTS - READING
N = 279*

Grade 6 June, 1983 N = 186		Grade 7 June, 1984		Difference		Grade 8 June, 1983 N = 93		Grade 9 June, 1984		Difference	
Per-centile	Grade Equiv-alent	Per-centile	Grade Equiv-alent	Per-centile	Grade Equiv-alent	Per-centile	Grade Equiv-alent	Per-centile	Grade Equiv-alent	Per-centile	Grade Equiv-alent
38	5.7	45	7.3	+7	+1.6	16	5.2	26	7.2	+10	+2.0

CTBS RESULTS - MATHEMATICS
N = 172*

Grade 6 June, 1983 N = 186		Grade 7 June, 1984		Difference		Grade 8 June, 1983 N = 93		Grade 9 June, 1984		Difference	
Per-centile	Grade Equiv-alent	Per-centile	Grade Equiv-alent	Per-centile	Grade Equiv-alent	Per-centile	Grade Equiv-alent	Per-centile	Grade Equiv-alent	Per-centile	Grade Equiv-alent
39	5.9	44	7.7	+5	+1.8	28	6.6	27	7.5	-1	+.9

* All project students who had taken the CTBS in the spring of both 1983 and 1984

APPENDIX E

BASIC SKILLS MONITORING GUIDE

BASIC SKILLS MONITORING GUIDE

SCHOOL: _____ TEACHER _____

DATE: _____ OBSERVER _____

	YES	NO	COMMENTS
A. CLASSROOM ENVIRONMENT:			
1. Does the environment reflect a focus on basic skills?			
2. Are the objectives for instruction displayed?			
3. Does the environment provide for flexible grouping?			
4. Does the environment reflect an activity-oriented laboratory concept?			
B. INSTRUCTION:			
1. Is there evidence of collaborative planning with regular subject area teacher?			
2. Is there evidence of pre-assessment?			
3. Is there evidence that CBC Curriculum objectives are being utilizied?			
4. Were the objectives for instruction stated clearly and concisely?			
5. Did the students understand the objectives?			
6. Did the students respond favorably to stated objectives?			
7. Are the learning activities appropriate for the students?			
8. Are the students actively involved in their learning?			

B. INSTRUCTION: (continued)

9. Is there evidence of instructional options to help in the achivement of the objective?

10. Is there evidence of assessment of mastery after instruction?

11. Is there evidence of the use of supplementary and manipulative materials in instruction?

C. CLASSROOM MANAGEMENT:

1. Is there evidence of systematic recordkeeping and reporting strategies?

2. Are student progress records available to the regular subject area teacher, to student and/or parent for review?

3. Was there orderly closure to the lesson?

4. Were appropriate follow-up activities given?

5. Was there evidence of home/school communication?

YES	NO	COMMENTS

APPENDIX F

INSERVICE AGENDA

ORIENTATION

Teachers of Basic Skills Program
Instructional Services Center
Tuesday, October 18, 1983
8:30 A.M. - 3:30 P.M.

AGENDA

Registration - Reading Teachers

Overview of Basic Skills Program ..... Mrs. LaVerne S. Glascoe

Basic Skills Information

Forms ..... Mrs. Vivian K. Carson

Evaluation ..... Dr. Marcia McBeath

Mastery Education Corporation

Chicago Mastery ..... Ms. Joyce Kohfeldt
Ms. Jane Agostinelli

Comprehension Skills
Word Attack Skills
Study Skills

Intac, Inc.
Songs to Read By - Upper Level
Reading Your Newspaper
Duplicating Book ..... Mr. Hiram Graham

Evaluation

Registration - Mathematics Teachers

Overview of Basic Skills Program ..... Mrs. Vivian K. Carson

Basic Skills Information

Forms ..... Mrs. LaVerne S. Glascoe

Evaluation ..... Dr. Sukai Prom

Holt, Rinehart and Winston
Problem Solving ..... Dr. Francis Fennell

Evaluation

APPENDIX G

MEMORANDA TO PRINCIPALS AND TEACHERS OF BASIC SKILLS PROGRAM

Office of Instruction — Instructional Services Center
Langdon Elementary School
20th and Franklin Streets, N.E. Washington, D.C. 20018

February 1, 1984

Memorandum To: Principals and Teachers of
Basic Skills Program

Subject: Basic Skills Workshop

A workshop has been scheduled for teachers of students in the Basic Skills Reading Classes/Laboratories.

Dr. Joan Nelson-Herber, a world renowned educator and authority in reading, will be making a presentation on the topic: "Development of Classroom Guides for Comprehension". This workshop will provide teachers with strategies for maximizing student gains in reading comprehension.

Date: Friday, February 24, 1984
Time: 9:00 A.M. - 3:30 P.M.
Site: Instructional Services Center
Langdon School
20th and Evarts Streets, N.E.
Room 231

If there is a need to hire a substitute for your Basic Skills Teachers please fill out the form normally completed for substitute payment, and forward it to me in order that the payment may be appropriately charged.

We are also requesting that the teachers bring to the meeting, copies of the results from the Prescriptive Reading Inventory (PRI), administered to the students participating in the Basic Skills Program. Dr. Marcia McBeath, Director of the ECIA, Chapter 2 Evaluation Unit would like to start analyzing the pre-test results as soon as possible.

This workshop will be an opportunity for participants to grow professionally as they acquire insight into new strategies. We look forward to the participation of the teachers who work with Basic Skills reading classes.

Thank you for your continuing support.

Dorothy C. Stephens

Dorothy C. Stephens
Director
Instructional Services
Center

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Office of Instruction **Instructional Services Center**
Langdon Elementary School
20th and Franklin Streets, N.E. Washington, D.C. 20018

March 21, 1984

Memorandum To: Principals and Mathematics Teachers
of Basic Skills Program

Subject: Basic Skills Workshop

A workshop has been scheduled for teachers of students in the Basic Skills Mathematics Classes/Laboratories.

Mrs. Carolyn H. Aho, will be making a presentation on the topic: "Calculator Math Program". This program parallels and supplements the 7th - 9th grade mathematics program. Materials (Calcuators, Calculator Math Binders and Calculator Math Task Cards) will be given to each school participating in the Basic Skills Program.

Date: Tuesday, April 10, 1984
Time: 8:30 - 3:00 P.M.
Site: Instructional Services Center
Langdon School
20th and Evarts Streets, N.E.
Room 231

If there is a need to hire a substitute for your Basic Skills Teachers, please fill out the form normally completed for substitute payment, and forward it to me in order that payment may be appropriately charged.

We are also requesting that the teachers bring to the meeting, copies of the results from the Diagnostic Mathematics Inventory (DMI), administered to the students participating in the Basic Skills Program. Dr. Marcia McBeath, Director of the ECIA, Chapter 2 Evaluation Unit would like to start analyzing the pre-test results as soon as possible.

This workshop will be an opportunity for participants to grow professionally as they acquire insight into new strategies. We look forward to the participation of the teachers who work with Basic Skills mathematics classes.

Thank you for your continuing support.

Dorothy C. Stephens

Dorothy C. Stephens
Director
Instructional Services Center

DCS:bjh

APPENDIX H

TEACHER EVALUATION

WHEN COMPLETED, PLEASE FOLD, STAPLE AND PUT IN SCHOOL MAIL.

ECIA Chapter 2

Improving Basic Skills in
Reading and Mathematics

Teacher Evaluation

Name _____ Date _____

School _____ Subject _____

As part of our evaluation of the ECIA Chapter 2 Basic Skills program, we are asking your help in rating two areas, your application of the program and your opinion of the effects of the program.

Please complete each item in this form by circling a number from 1 to 5, with 1 representing the minimum and 5 representing the maximum.

1. EFFECT OF PROGRAM	Negative				Positive
a. Impact on students' achievement	1	2	3	4	5
b. Impact on students' attitudes	1	2	3	4	5
c. Impact on teachers' attitudes	1	2	3	4	5

2. APPLICATION	Not at all				Totally
a. Extent to which you adapted materials to special needs of students	1	2	3	4	5
b. Extent to which you adapted strategies to special needs of students	1	2	3	4	5

052284

Prepared by
Division of Quality Assurance

APPENDIX I

BASIC SKILLS CONFIGURATION DIAGRAM

BASIC SKILLS CONFIGURATION DIAGRAM

1. Materials and Equipment	(1)	(2)	(3)
	At least 3 different program materials are used each session.	At least 1 program material is used each session.	No program materials are used each session.
2. Diagnosis	(1)	(2)	(3)
	Students are diagnosed individually using PRI and/or DMI tests and teacher judgement.	Students are diagnosed individually using any diagnostic test and teacher judgement.	Students are diagnosed using teacher judgement only or are not diagnosed.
3. Record-Keeping	(1)	(2)	
	Individual record sheet is used to record diagnosis and prescription.	No individual record sheets are used.	
4. Teaching Strategies	(1)	(2)	
	Teacher readjusts instructional strategies according to students' needs.	Teacher does not readjust instructional strategies according to students' needs.	
5. Materials Use	(1)	(2)	
	Teacher readjusts materials according to students' needs.	Teacher does not readjust materials according to students' needs.	
6. Updating	(1)	(2)	
	Student learning plans for personalizing instruction are regularly up-dated.	Student learning plans for personalized instruction are not regularly updated.	
7. Scheduling	(1)	(2)	(3)
	Students are taught for 1 class period 5 times per week.	Students are taught for 1 class period 3 times per week.	Students are not taught for at least 1 class period 3 times per week.
8. Posttesting	(1)	(2)	(3)
	Students are postested using the PRI and/or DMI.	Students are posttested using the same test used for the diagnostic pretest.	Students are not posttested.

CODE: Variations to the right of the solid line are unacceptable; variations to the left are acceptable.

Variations to the left of the dotted line are ideal, as prescribed by the developer.

Questions for Interview on the
Basic Skills Configuration

Component 1

What types of program materials did you receive?

Which ones did you use?

How often did you use these materials?

Components 2 and 8

How were the students' strengths and weaknesses determined?

*Were the students tested?

*What instruments were used?

*How many times?

*What instrument was used pre- and what instrument post?

Component 3

Describe for me your record-keeping procedures?

Component 4 and 5

What strategies and materials did you use to meet students' needs?

*How did you adjust these to the needs of individual students?

Component 6

Did you develop learning plans for personalized instruction?

Can you describe for me how you used these plans in your instructional setting?

*How often are they updated?

Component 7

How often did the basic skills classes meet?

*How long?

*How many times per week?

---

*Ask only if configuration response was not forthcoming in previous question.

APPENDIX J

TEACHER RATINGS OF PROJECT WORKSHOPS

TEACHER RATINGS OF PROJECT WORKSHOPS

Data for 10/18/84

	EXCEL-LENT #	%	VERY GOOD #	%	ADEQUATE #	%	LESS THAN ADEQUATE #	%	NOT APPLI-CABLE #	%	NO RESPONSE #	%	TOTAL #	%	MEAN RATING (OF ITEMS RATED)
Objectives	24	71	9	26	0	-	0	-	0	-	1	3	34	100	3.73
[illegible]ntent	23	68	10	29	0	-	0	-	0	-	3	1	34	100	3.69
Materials	23	68	10	29	0	-	0	-	0	-	2	6	34	100	3.72
[illegible]rganizational Format	23	68	11	32	0	-	0	-	0	-	0	-	34	100	3.67
[illegible]ssibility for Use of [illegible]periences	24	71	10	29	0	-	0	-	0	-	0	-	34	100	3.71

Data for 2/24/84

	EXCEL-LENT #	%	VERY GOOD #	%	ADEQUATE #	%	LESS THAN ADEQUATE #	%	NOT APPLI-CABLE #	%	NO RESPONSE #	%	TOTAL #	%	MEAN RATING (OF ITEMS RATED)
Objectives	19	73	6	23	0	-	0	-	0	-	1	4	26	100	3.76
[illegible]ntent	24	92	2	8	0	-	0	-	0	-	0	-	26	100	3.92
Materials	21	81	4	15	0	-	0	-	0	-	1	4	26	100	3.84
[illegible]rganizational Format	22	85	4	15	0	-	0	-	0	-	0	-	26	100	3.85
[illegible]ssibility for Use of [illegible]periences	15	58	9	35	2	8	0	-	0	-	0	-	26	100	3.50

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APPENDIX K

RESULTS OF TEACHER EVALUATION QUESTIONNAIRE

RESULTS OF TEACHER EVALUATION QUESTIONNAIRES

N = 31*

EFFECT OF PROGRAM (Items)	% 4 & 5 RATINGS	MEAN RATINGS	APPLICATION (Items)	% 4 & 5 RATINGS	MEAN RATINGS
1. Impact on students' achievement	90%	4.4	4. Extent to which you adapted materials to special needs of students	90%	4.7
2. Impact on students' attitudes	93%	4.3	5. Extent to which you adapted strategies to special needs of students	87%	4.3
3. Impact on teachers' attitudes	83%	4.6			

SUMMARY OF EVALUATION BY TEACHERS
IMPROVING BASIC SKILLS IN READING AND MATHEMATICS

ITEM (See above for Description)	NEGATIVE 1		2		3		4		POSITIVE 5		NR		T	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1	0	0	0	0	3	10	14	25	14	45	0	0	31	100
2	0	0	0	0	2	6	19	61	10	32	0	0	31	99
3	0	0	0	0	5	16	2	6	24	77	0	0	31	99
4	0	0	1	3	2	6	13	42	15	48	0	0	31	99
5	0	0	2	6	2	6	11	35	16	52	0	0	31	99
Total	0	0	3	2	14	9	59	38	79	51	0	0	155	100

* Response rate = 65%

APPENDIX L

SAMPLES OF MATHEMATICS RESOURCE DEVELOPMENT
PROGRAM INFORMATIONAL MATERIAL

If you desire to continue as a participant in the Secondary Mathematics Teacher Certification Program this coming year, tuition free, you will be interested to know that the following courses will be offered. You may enroll in any of them depending on your entry level needs.

Fall 1983		Credits
Mon & Wed	Precalculus with Trigonometry 1 M 113	3
	Linear Algebra M 225	3
Tues & Thurs	Calculus 1 M 151	4
	Calculus 2 M 152	4
Spring 1984		
Mon & Wed	Precalculus with Trigonometry 2 M 114	3
	Calculus 2 M 152	4
Tues & Thurs	Probability & Statistics for Teachers M 551	3
Summer 1984		
	Geometry Institute M 431	3
Fall 1984		
Mon & Wed	Calculus 1 M 151	4
	Calculus 3 M 253	4
Tues & Thur	Linear Algebra M 225	3
	Precalculus with Trigonometry 1 M 113	3
Spring 1985		
Mon & Wed	Probability & Statistics for Teachers M 551	3
	Computer Mathematics M 495	3
Tues & Thur	Precalculus with Trigonometry 2 M 114	3
	Calculus 2 M 152	4
Summer 1985		
	Geometry Institute M 431	3
	Linear Algebra M 225	3

University of the District of Columbia
Mathematics Courses
Tuesday and Thursdays
October 4 - December 8

Math 0535-113 Precalculus with Trigonometry 1 - 3 Credits 3:30 - 6:30

This two-course sequence is designed primarily for students preparing to take calculus but is open to all students. Topics include algebraic notation and symbolism, exponents and radicals, functions, solution of linear functions and their graphs, conic sections, circular, exponential and logarithmic functions and their graphs. PREREQUISITE: Math 015

Math 0535-151 Calculus 1 - 4 credits 3:30 - 7:00

Limits and continuity, the derivative and its applications, the integral and its applications, and the fundamental theorem of calculus, PREREQUISITE: Math 112, 113, or 115

Math 0535-152 Calculus 11 - 4 credits 3:30 - 7:00

Continuation of Math 151. Further applications of the derivative and the integral, elementary transcendental functions, techniques of integration, further topics in the calculus of one variable, analytic geometry, vectors, the calculus of several variables, and partial differentiation. PREREQUISITE: Math 151

Math 0535-225 Linear Algebra - 3 Credits 3:30 - 6:30

This course is part of the calculus sequence. Topics include systems of linear equations and methods of solutions, matrices and matrix solutions of linear systems, matrix algebra, determinants, vectors and vector spaces, linear transformations, and inner products and norms. PREREQUISITE: Math 151 or 211

FIRST CLASS MEETING AND

REGISTRATION AT LANGDON SCHOOL
OCTOBER 4, 1983
3:30 p.m.

TUITION GRANTS MAY BE AVAILABLE

IN-SERVICE COURSE

TITLE: Mini Seminars for Teachers of Mathematics

COURSE DESCRIPTION:

This course is offered to teachers of mathematics who have been identified by themselves, their supervisors or school principals as needing more support in basic teaching skills, classroom management, and mathematics content. The seminars will be self-contained modules, focusing on specific skills in all six objectives. There will be three (3) levels of instruction presented in a spiral curriculum design. Week (1) will focus on the beginning entry skill level of instruction. Week (2) will present the same objectives at a higher level of understanding and complexity. Week (3) will be the highest level with a complexity that integrates the objectives for master teaching. Teachers will have the opportunity to dialogue with peers and supervisors and to utilize the learnings in the development of classroom useful products. The instruction will also provide individualized activities in order that participants are able to achieve their personal objectives in relationship to the course objectives. Resource persons will be used to provide special expertise in the processes and content of the seminars. The seminars will be of such a nature that participants will not have to be in one seminar in order to participate in another. Research data and processes will be utilized by the teachers in helping to made decisions about their instructional improvement options.

Schedule to Course Activities:

Weeks (1-3)

Monday:	Planning for Instruction
Tuesday:	Motivating Students
Wednesday:	Implementing and Evaluation Instruction
Thursday:	Classroom Management and Implementing Instruction
Saturday:	Mathematics Content and Concepts (to be presented in ways that model for classroom use by the participants)

Materials:

Videotapes, filmstrips, texts, transparencies, mathematics games, manipulatives and visiting resource consultants.

Types of Experiences to be Provided:

Discussion (small and large group); audio-visual; learning stations; problem-solving and critiques; lectures; demonstrations, learning teams for project development.

Grading System
Letter grades of A, B, C, or F will be used.

All course requirements plus all six Objectives = A
All course requirements plus all five Objectives = B
All course requirements plus all four Objectives = C
Below completion of 4 Objectives = F
Incompleted requirements and Objective = I

Evaluation:

1. Daily feedback to design and helpfulness by participants and instructor/ consultants.

2. Products that demonstrate mastery of the objectives that can be assessed by the mathematics classroom. The quality of the products will be assessed by (public criteria) the instructor.

OBJECTIVES: As a result of demonstrations, discussions, practice, and audio-visual presentations, participants will increase their competencies in:

1. planning for mathematics instruction, using curriculum guides, identifying appropriate objectives, determining activities to support objective achievement, determining assessment criteria, identifying resources, providing for remediation, determining grouping structures, and instructor roles; - use of 7 step CBC plan;

2. motivating students in learning mathematics, through dealing with mathematics anxiety/ avoidance/ and fear, assessing student learning styles and interests, improving communication skills with students, communicating high expectations, and providing a comfortable and attractive classroom environment;

3. managing the mathematics classroom, by effective use of instructional and non-instructional time, maintaining discipline, organizing resources, and maintaining efficient recordkeeping and other documentation processes;

4. implementing instruction in mathematics, using innovative techniques, a variety of modes of instruction, and focussing on higher order thinking skills;

5. evaluating instruction and learner achievement in mathematics, through pre- and post- assessment instrument development and analysis; and

6. mathematics content and concepts, including: whole numbers, mathematical systems, fractions, decimals, percents, problem-solving, probability and statistics, geometry and measurement, and metrics.

UNIVERSITY OF THE DISTRICT OF COLUMBIA
Division of Continuing Education

and

The College of Physical Science, Engineering and Technology
Department of Mathematics

In Cooperation With
The District of Columbia Public Schools

OFFERS

SUMMER '83 INSTITUTE
"COMPUTER MATHEMATICS AND PROBLEM SOLVING"

TUITION FREE

for

Teachers Pursuing Secondary Mathematics Certification
July 18-August 12, 1983

About the Institute ...

* The Institute is one of a series of Mathematics teachers certification offerings sponsored by UDC and DCPS.
* A maximum of fifty (50) teachers will be accepted.
* Pre-requisite: Some introductory computer literacy.
* Priority given to teachers pursuing certification in Mathematics.
* Each participant will receive three (3) academic credits from UDC and three (3) in-service credits from DCPS.
* Each participant will receive a computer.

FOR FURTHER INFORMATION, CONTACT: Dr. Bess Howard (576-7816)

Class Days/Time: July 18-August 12, 1983
Monday thru Thursday
9:00 a.m.-3:00 p.m.

Location: District of Columbia Public School -- TBA

All new students must submit a copy of their transcript or diploma as proof of their undergraduate degree at the time of registration.

SURVEY FORM -- Return to Dr. Bess Howard, Instructional Services, Langdon School, 20th & Franklin Streets, N.W., Washington, D.C. 20018 — NO LATER THAN June 15, 1983.
ROUTE #3
Please register me to participate in "Computer Mathematics and Problem Solving" for July 18-August 12, 1983:

Name: _____ SSN: _____

Address: _____

School: _____ Phone No.: _____

! ! ! NOTICE ! ! !

THE UNIVERISTY OF THE DISTRICT OF COLUMBIA WILL OFFER D.C. PUBLIC SCHOOL-BASED COURSES IN MATHEMATICS IF AT LEAST TEN STUDENT REGISTER FOR A COURSE. THE FOLLOWING COURSES MAY BE AVAILABLE ON TUESDAYS AND THURSDAYS, BASED ON THE "INTENT-TO-REGISTER" RESPONSES WE GET. YOUR TUITION WILL BE REIMBURSED BY THE D.C. PUBLIC SCHOOLS UPON SATISFACTORY COMPLETION OF THE COURSE!

PLEASE RETURN THE ATTACHED FORM NO LATER THAN JANUARY 27, 1984, SO THAT WE CAN LET YOU KNOW WHETHER THE COURSES WILL BE OFFERED.

COURSE	CREDITS	COST
PROBABILITY AND STATISTICS	3	$141.00
PRECALCULUS WITH TRIGONOMETRY 2	3	141.00
CALCULUS 2	4	188.00
CALCULUS 3	4	188.00

RETURN THIS FORM, THROUGH CLERICAL SERVICES TO:

Mathematics Department
Instructional Services Center
Langdon School
20th & Franklin Streets, N.E.
Washington, D.C. 20018
Route #3
Phone: 576-7816

LIST NAMES OF THOSE INTENDING TO REGISTER IN THE FOLLOWING COURSES:

COURSE	NAMES & SOCIAL SECURITY#	SCHOOL & ROUTE#
PRECALCULUS WITH TRIGONOMETRY 2		
PROBABILITY AND STATISTICS		
CALCULUS 2		
CALCULUS 3		

THE UNIVERSITY OF THE DISTRICT OF COLUMBIA Semester 2 January 17- May 11, 1964

MATHEMATICS COURSES:

General Registration ; January 9 thru January 12, 1984

Late Registration ; January 13, 1984

Course Number	sect	Title	Credits	Days	Start Stop	Bldg	Room	Instructor
0535-113	o4	Precalc with Trig I	3.0	M W	5:30-7:50pm		TBA	Ly
0535-113	05	Precalc with Trig I	3.0	T R	7:00-8;20pm		TBA	Staff
0535-114	03	Precalc with Trig II	3.0	M W	7:00-8;20pm		TBA	Ly
0535-115	03	Precalculus	5.0	M W	5:30-7:35pm	39	116	Perkins
0535-151	04	Calculus I	4.0	MTWR	5:30-6:20 pm		TBA	Griffin
0535-151	05	Calculus I	4.0	MTWR	8:30-9:20 pm	39	112	Phua
0535-152	03	Calculus II	4.0	MTWR	5:30-6:20 pm	39	112	Staff
0535-152	04	Calculus II	4.0	MTWR	7:00-7:50 pm	39	112	Thomas
0535-185	03	Elementary Statistics	3.0	T R	5:30-6;50 pm		TBA	Staff
0535-186	02	Elementary Statistics II	3.0	M W	7:00-8:20 pm		TBA	Staff
0535-225	03	Linear Algebra	3.0	M W	7:00-8:20 pm		TBA	Staff
0535-225	04	Linear Algebra	3.0	T R	5:30-6:50 pm		TBA	Perkins
0535-253	02	Calculus III	4.0	MTWR	5:30-6:20 pm		TBA	Hall
0535-254	02	Differential Equations	3.0	T R	5:30-6:50 pm	39	103	Thomas
0535-394	01	Informal Geometry with Applic.	3.0	M W	5:30-6:50 pm	39	103	Staff
0535-502	01	Differential Equations	3.0	M W	7:00-8:20 pm	39	102	Bakshi
0535-505	01	Advanced Calculus I	3.0	T R	7:00-8:20 pm	39	102	Barnes

APPENDIX M

1982-83 MATHEMATICS INSTRUCTIONAL PROFILE

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SECONDARY MATHEMATICS INSTRUCTIONAL PROFILE
SY 82-83

	Junior High Schools /4	Senior High Schools/Career Centers /5	Total
TEACHER AND COURSE BREAKDOWNS:			
Total number of teachers listed as teaching at least one mathematics course /1	222	120	342
Number (percent) of certified mathematics teachers teaching at least one mathematics course /1,2	89 (40.1%)	94 (78.3%)	183 (53.5%)
Number (percent) of other teachers teaching at least one mathematics course /1	133 (59.9%)	26 (21.7%)	159 (46.5%)
Number of mathematics courses taught by certified mathematics teachers /2,3	438 (61.5%)	450 (80.4%)	888 (69.8%)
Number of mathematics courses taught by other teachers /3	274 (38.5%)	110 (19.6%)	384 (30.2%)
Total number of mathematics courses taught	712	560	1272

NOTES:

/1 Includes all current secondary mathematics courses
/2 Certified mathematics teachers are defined here as any teacher listed with permanent or probationary status in a series 10580 (mathematics) position
/3 Includes all current secondary mathematics courses except Fundamentals of Arithmetic
/4 Includes Fletcher-Johnson and Friendship Educational Centers and all regular junior highs except Shaw
/5 Includes all Career Development Centers except Ellington, Penn, and Burdick

SOURCES OF INFORMATION:

DCPS/DAIS Listing of All Mathematics Teachers by Building (3/21/83)
DCPS/DAIS Listing of Mathematics Teachers and the Courses They Teach (3/24/83)
DCPS/DAIS List of all "ET" employees on PAF as of 11/13/82 (1/7/83)
DCPS/DAIS Mark Distribution Report by Teacher-1st Advisory (11/10/82)

APPENDIX N

INTENT TO REGISTER FORM

INTENT TO REGISTER FORM

Name _____

Address _____

Telephone _____

Social Security Number _____

School _____ Region ___ Route ___

Check the appropriate line.

I intend to register in the following U.D.C. course to be held on Tuesdays and Thursdays, October 4 to December 8, 1983.

_____1. Precalculus with Trigonometry

_____2. Calculus I

_____3. Calculus II

_____4. Linear Algebra

Fold and staple/tape this form. Send through School Clerical Services to the address on the reverse side.

!!! RETURN THIS FORM BY SEPTEMBER 19, 1983 !!!

REGISTRATION AND FIRST CLASS MEETING AT
Langdon School, 20TH and Franklin Sts., N.E.

3:30 p.m.
October 4, 1983

MATHEMATICS DEPARTMENT 576-7816

Langdon School
20th and Franklin Sts., N.E.
Route #3 (clerical)

APPENDIX O

COURSES AND NUMBERS OF
TEACHERS ENROLLED, 1983-84

Office of Instruction **Instructional Services Center**

Langdon Elementary School
20th and Franklin Streets, N.E. Washington, D.C. 20018

September 20, 1984

Dr. Marcia McBeath
Chapter 2 Evaluation
Room 1013
Presidential Building
415 12th Street, N.W.
Washington D.C.

Dear Marcia:

The following data identifies the number of teachers that were enrolled in mathematics courses developed and supported by the Resource Development component of the Basic Skills Chapter 2 during 1983-84.

	COURSE	Number enrolled
Summer, 1983	Computer Mathematics & Problem Solving	42
Fall, 1983	Mini-Seminars for Teachers of Mathematics (Methods)	7
	PreCalculus / Trigonometry 1	12
	Calculus 1	8
	Calculus 2	7
	Linear Algebra	13
	Geometry for Elementary School Teachers	17
Spring, 1984	Basic Algebra for Basic Skills (Inservice, Preparatory)	7
	PreCalculus/ Trigonometry 2	8
	Calculus 2	8
	Calculus 3	7
	Probability & Statistics	24
	TOTAL	160

Yours truly,

Bessie C. Howard

Bessie C. Howard
Assistant Director Mathematics,
Resource Development